

REMARKS

Claims 1-30 are pending. Claims 1-30 have been rejected. Claims 6, 8, 9, 16, 18, 19, 26, 28, and 29 have been canceled and their features have been added to the independent claims. Claims 1, 11, 21-25, 27, and 30 have been amended. No new matter has been added.

Claims 1, 4, 11, 14, 20, 21, and 24 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Legaria ("Orthogonal Optimization of Sub Queries and Aggregation"). It is respectfully submitted that claims 1, 4, 11, 14, 20, 21, and 24 are allowable over the art of record for the reasons set forth below.

Independent claims 1, 11, and 21 are directed to algebrizing a syntax tree representation of a relational database query into a relational algebra representation. The algebrizing comprises a plurality of operations. Claims 1, 11, and 21 have been amended to include the feature that one of the operations is constant folding. The prior art, taken alone or in combination, neither discloses nor suggests constant folding.

As acknowledged by the Office Action with respect to dependent claims 6, 8, 9, 16, 18, 19, 26, 28, and 29 which include the feature of constant folding (and have been canceled with the feature being added to claims 1, 11, and 21 by amendment), Legaria fails to disclose or suggest constant folding.

The Office Action states that Chengwen ("A Framework for Global Optimization of Aggregated Queries") teaches constant folding. It is respectfully submitted that Chengwen fails to teach constant folding as claimed, but instead describes optimization in which a resulting ratio is improved "three-fold" or "N-fold" (e.g., "the improvement ratio is nearly three-fold for result sets that are reasonably small", "in general, we will see close to an N-fold improvement for an AQB with N participating queries" (page 269, left column)). The claimed constant folding is an operation in the algebrizing of a syntax tree representation, whereas the three-fold or N-fold improvement ratio in Chengwen is merely a measurement expression used to describe the results of a process.

As is well known, "-fold", as used by Chengwen, is a suffix used to represent multiplication by a specific number of times. Chengwen uses three-fold or N-fold as an adjective to describe the resulting improvement, which is completely different than the operation of constant folding in the claims.

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Therefore, independent claims 1, 11, and 21, and their dependent claims, are patentable for the reasons set forth above. Withdrawal of the rejections of claims 1, 4, 11, 14, 20, 21, and 24 under 35 U.S.C. § 102(b) is respectfully requested

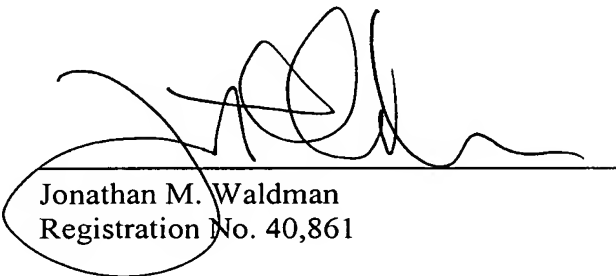
Claims 2, 3, 5-10, 12, 13, 15-19, 22, 23, and 25-30 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Legaria in view of Chengwen ("A Framework for Global Optimization of Aggregated Queries"). As noted above, claims 6, 8, 9, 16, 18, 19, 26, 28, and 29 have been canceled, thereby obviating their rejections. Claims 2, 3, 5, 7, 12, 13, 15, 17, 22, 23, 25, and 27 variously depend from the independent claims 1, 11, and 21, and are therefore patentable for the reasons set forth above. Chengwen, as described above, fails to teach constant folding as an operation in the algebrizing of a syntax tree representation as claimed, but instead describes optimization in which a resulting ratio is said to have been improved "three-fold" or "N-fold".

Independent claims 10, 20, and 30 also recite the feature of a constant folding operation in the algebrizing of a syntax tree representation of a relational database query into a relational algebra representation, so they too, are patentable for at least the reasons set forth above with respect to claims 1, 11, and 21.

Therefore, withdrawal of the rejections of claims 2, 3, 5, 7, 10, 12, 13, 15, 17, 20, 22, 23, 25, 27, and 30 under 35 U.S.C. § 103(a) is respectfully requested.

In view of the above amendments and remarks, Applicants respectfully submit that the present application is in condition for allowance. Reconsideration of the application and an early Notice of Allowance are respectfully requested.

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